

What is claimed is:

1. A connecting member used for serially connecting two carrier tapes, comprising:

5        a base film;

      a belt-like reference band substantially fixed on said base film;

      a bonding tape adhering on said base film; and

      a cover film covering said bonding tape,

      wherein a straight reference face is provided on a longitudinal side of said  
10 reference band closely to said bonding tape.

2. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein said base film is configured into a rectangular shape, and said reference band is positioned in parallel with one side of said base film.

3. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein the color of said reference band is different from that of said base film.

20        4. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein said base film is transparent.

25        5. The connecting member used for serially connecting two carrier tapes in accordance with claim 4, wherein the color of said reference band is selected from the group consisting of black, red, blue, yellow, green, and white.

30        6. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein said reference band is thicker than said cover film.

7. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein

a plurality of feed hole marks are provided between said reference band and said bonding tape on said base film, and

5       said feed hole marks are arrayed at predetermined intervals so as to agree with feed holes of each carrier tape.

8. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein an edge mark is provided at a longitudinal center of said base film to indicate a portion corresponding to a cut face of each carrier tape.

10      9. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein

a folding line is provided between two bonding tapes on said base film, and

15      said folding line is parallel to said reference face of said reference band.

20      10. The connecting member used for serially connecting two carrier tapes in accordance with claim 9, wherein said base film is configured into a rectangular shape, and a distance from said folding line to said reference face of reference band located near one side of said base film is longer than a distance from said folding line to an opposite side of said base film.

25      11. The connecting member used for serially connecting two carrier tapes in accordance with claim 2, wherein a predetermined gap is provided between said reference band and one side of said base film.

30      12. The connecting member used for serially connecting two carrier tapes in accordance with claim 2, wherein said cove film overhangs from an opposite

side of said base film far from said reference band.

13. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein said base film and said bonding tape have the same size in a longitudinal direction of said reference band.

14. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein said base film and said reference band have the same size in a longitudinal direction of said reference band.

10

15. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein said base film has a size not shorter than 20 mm in a longitudinal direction of said reference band.

16. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein said bonding tape has a size not longer than 80 mm in a longitudinal direction of said reference band.

17. The connecting member used for serially connecting two carrier tapes in accordance with claim 1, wherein

a plurality of carrying holes are provided on said carrier tape for accommodating parts,

a top tape covers said carrying holes, and

a transverse width of said bonding tape is narrower than that of said top tape.

25

18. The connecting member used for serially connecting two carrier tapes in accordance with claim 17, wherein the transverse width of said bonding tape is not larger than 90% of the transverse width of said top tape.

30

19. The connecting member used for serially connecting two carrier tapes

in accordance with claim 17, wherein the color of said bonding tape is different from that of said carrier tape or said top tape.

20. The connecting member used for serially connecting two carrier tapes  
5 in accordance with claim 19, wherein said bonding tape is semitransparent.

21. The connecting member used for serially connecting two carrier tapes  
in accordance with claim 17, wherein said bonding tape is transparent.

10 22. A method for serially connecting two carrier tapes with a connecting  
member,

15 said connecting member comprising:  
a base film;  
a belt-like reference band substantially fixed on said base film;  
a bonding tape adhering on said base film; and  
a cover film covering said bonding tape,  
wherein a straight reference face is provided on a longitudinal side of said  
reference band closely to said bonding tape,

20 said method comprising the steps of:  
peeling the cover film off said base film;  
positioning an edge portion of a first carrier tape on said base film in such  
a manner that said first carrier tape is brought into contact with said reference  
band along the reference face;

25 bonding the edge portion of said first carrier tape to the bonding tape;  
positioning an edge portion of a second carrier tape on said base film in  
such a manner that said second carrier tape is brought into contact with said  
reference band along the reference face and is also brought into contact with said  
first carrier tape along their edge portions;

30 bonding the edge portion of said second carrier tape to the bonding tape;  
and  
removing an assembly of said first and second carrier tapes serially

TOTOTOT-8/28/2020 20

connected by said bonding tape from said base film.

23. A method for serially connecting two carrier tapes with a connecting member,

5       said connecting member comprising:

      a base film;

      a belt-like reference band substantially fixed on said base film;

      a bonding tape adhering on said base film; and

      a cover film covering said bonding tape,

10      wherein a straight reference face is provided on a longitudinal side of said reference band closely to said bonding tape,

      a plurality of feed hole marks are provided between said reference band and said bonding tape on said base film, and

      said feed hole marks are arrayed at predetermined intervals so as to agree with feed holes of each carrier tape,

      said method comprising the steps of:

      peeling the cover film off said base film;

      positioning an edge portion of a first carrier tape on said base film in such a manner that said first carrier tape is brought into contact with said reference band along the reference face and also the position of feed holes of said first carrier tape agrees with the feed hole marks of said base film;

      bonding the edge portion of said first carrier tape to the bonding tape;

      positioning an edge portion of a second carrier tape on said base film in such a manner that said second carrier tape is brought into contact with said reference band along the reference face and is also brought into contact with said first carrier tape along their edge portions;

      bonding the edge portion of said second carrier tape to the bonding tape;  
and

      removing an assembly of said first and second carrier tapes serially connected by said bonding tape from said base film.

24. A method for serially connecting two carrier tapes with a connecting member,

said connecting member comprising:

a base film;

5 a belt-like reference band substantially fixed on said base film;  
a bonding tape adhering on said base film; and  
a cover film covering said bonding tape,

wherein a straight reference face is provided on a longitudinal side of said reference band closely to said bonding tape, and

10 an edge mark is provided at a longitudinal center of said base film to indicate a portion corresponding to a cut face of each carrier tape,

said method comprising the steps of:

peeling the cover film off said base film;

positioning an edge portion of a first carrier tape on said base film in such a manner that said first carrier tape is brought into contact with said reference band along the reference face and also the position of said edge portion of said first carrier tape agrees with said edge mark of said base film;

bonding the edge portion of said first carrier tape to the bonding tape;

positioning an edge portion of a second carrier tape on said base film in such a manner that said second carrier tape is brought into contact with said reference band along the reference face and is also brought into contact with said first carrier tape along their edge portions;

bonding the edge portion of said second carrier tape to the bonding tape;  
and

25 removing an assembly of said first and second carrier tapes serially connected by said bonding tape from said base film.

25. The carrier tape connecting method in accordance with claim 22,  
wherein

30 each of said first and second carrier tapes has a plurality of carrying holes for accommodating parts and a top tape covering said carrying holes, and

the edge portions of said first and second carrier tapes are connected to said bonding tape via said top tape.

26. A method for serially connecting two carrier tapes with a connecting member,

5           said connecting member comprising:

          a base film;

          a belt-like reference band substantially fixed on said base film;

          first and second bonding tapes adhering on said base film; and

10           a cover film covering said first and second bonding tapes,

          wherein a straight reference face is provided on a longitudinal side of said reference band closely to said bonding tapes,

          a folding line is provided between said first and second bonding tapes on said base film, and

15           said folding line is parallel to said reference face of said reference band,

          said method comprising the steps of:

          peeling the cover film off said base film;

          positioning an edge portion of a first carrier tape on said base film in such a manner that said first carrier tape is brought into contact with said reference band along the reference face;

          bonding one surface of the edge portion of said first carrier tape to the first bonding tape located between said folding line and said reference band;

25           positioning an edge portion of a second carrier tape on said base film in such a manner that said second carrier tape is brought into contact with said reference band along the reference face and is also brought into contact with said first carrier tape along their edge portions;

          bonding one surface of the edge portion of said second carrier tape to said first bonding tape;

30           folding said base film along said folding line so that the second bonding tape located between said folding line and the other end of said base film is

adhered on opposite surfaces of the edge portions of said first and second carrier tapes; and

removing an assembly of said first and second carrier tapes serially connected by said first and second bonding tapes from said base film.

5

27. The carrier tape connecting method in accordance with claim 26, wherein

each of said first and second carrier tapes has a plurality of carrying holes for accommodating parts and a top tape covering said carrying holes, and

10

the edge portions of said first and second carrier tapes are first connected to said first bonding tape via said top tape and then connected to said second bonding tape.

TOTEST-82834660  
15

28. The carrier tape connecting method in accordance with claim 22, further comprising the step of cutting the edge portions of said first and second carrier tapes into convex and concave shapes just fitting to each other, before said edge portions of said first and second carrier tapes are connected with said connecting member.

20

29. The carrier tape connecting method in accordance with claim 22, further comprising the step of cutting the edge portions of said first and second carrier tapes into wavy shapes just fitting to each other, before said edge portions of said first and second carrier tapes are connected with said connecting member.

25

30. The carrier tape connecting method in accordance with claim 28, wherein the edge portions of said first and second carrier tapes are cut with a cutting tool having cutting blades corresponding to said convex and concave shapes.

30

31. The carrier tape connecting method in accordance with claim 30,

wherein positioning pins, engageable with said feed holes of said carrier tapes, are provided on one cutting blade of said cutting tool.

32. The carrier tape connecting method in accordance with claim 31,  
5 wherein

each of said first and second carrier tapes has a plurality of carrying holes for accommodating parts and a top tape covering said carrying holes, and

said top tape is cut into convex and concave shapes or into wavy shapes at the edge portions of said carrier tapes.

10  
33. The carrier tape connecting method in accordance with claim 32, wherein the top tape provided on a leading edge of a downstream carrier tape is cut into a convex shape protruding toward a trailing edge of an upstream carrier tape.

15  
34. The carrier tape connecting method in accordance with claim 33, wherein said convex shape has a pinnacle at substantially the center of said top tape provided on the leading edge of the downstream carrier tape.

TOTTO-828E/660